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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/112,786	07/10/1998	KIA SILVERBROOK	ART42-US	7308

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EXAMINER

YE, LIN

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 03/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/112,786

Applicant(s)

SILVERBROOK, KIA

Examiner

Lin Ye

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

2. Claims 6-8 objected to because of the following informalities:

In claim 6, line 1 "any of claims 2 to 5" is not an appropriate claim language.

Appropriate correction is required.

For the purpose of examination, it will be presumed that the claim 6 only depends from claim

2.

Claims 7-8 are objected as being dependent on claim 6.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Gove et al. U.S. Patent 5,768,609.

Referring to claim 1, the Gove reference discloses in Figures 1, 29, 47-53, a digital camera system has a set of processors (100-103) for processing sensed image and graphics. All processors have communication links to several memories and series arranged on a central crossbar switch (20) (See Col 6, lines 10-24). It also has an image sensor (4906) for sensing an image as shown in Figure 49.

Referring to claims 2 and 6, each processor (100-103) includes Arithmetic Logic Unit (ALU) (2902) acting under the control of a microcode store as shown in Figure 29. ALU accepts a series of inputs interconnected and internal crossbar switch (20) to a series of core processing units (12) within ALU (See Col 34, lines 50-67).

Referring to claims 3 and 4, transfer processor (11) includes an internal input and output FIFO (5701) for storing pixel data utilized by processing elements as shown in Figure 57. Processors are interconnected to read and write FIFO for reading and writing pixel data of images (See Col 58, lines 1-2).

Referring to claim 7, core-processing units (12) include at least one of a multiplier (2905) an adder and a barrel shifter (2910) as shown in Figure 29.

Referring to claim 8, ALU (2902) connected number internal registers (2901) for the storage of temporary data as shown in Figure 29 (See Col. 35, lines 11-12).

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Referring to claim 9, processing elements (100-103) are further connected to a common data bus (40) for the transfer of pixel data as shown in Figure 2 (See Col. 6, lines 32-33).

Referring to claim 10, the data bus (171) are interconnected to a data cache (13) which acts as an intermediate cache between processing elements (100-103) and a memory (10) store for storing images as shown in Figure 2 (See Col. 6, lines 30-32).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gove et al. U.S. Patent 5,768,609.

Gove does not show that the processing elements are arranged in a ring and each element is also separately connected to its nearest neighbors, it would have been obvious to incorporate such a design rather than the set of processors parallel connect with crossbar switch used in Gove. Official Notice is taken that doing so would save more space.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- a. Longhenry et al. U.S 5,991,865 discloses a routable operand and selectable operation processor multimedia extension unit is employed to motion compensate MPEG video using improved vector processing.
 - b. Colwell et al. U.S 4,833,599 discloses a parallel data processing system having a plurality of separately operating arithmetic processing units.
 - c. Wilkinson et al. U.S 5,809,202 discloses a floating point system and method according to a format.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (703) 305-3250. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to:

(703) 872-9314


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Lin Ye
March 5, 2002